

Sequence Listing  
SEQUENCE LISTING

<110> The University of British Columbia

<120> Insect Expression Vectors

<130> 80021-44

<140> US 09/048,911

<141> 1998-03-26

<150> US 60/049,946

<151> 1997-03-27

<160> 50

<170> PatentIn Ver. 2.0

<210> 1

<211> 564

<212> DNA

<213> Orgyia pseudotsugata

<400> 1

catgatgata aacaatgtat ggtgctaatg ttgcttcaac aacaattctg ttgaactgtg 60

ttttcatgtt tgccaacaag caccttata ctcggtgcc tccccaccac caacttttt 120

gcactgcaaa aaaacacgct tttgcacgct ggcccataca tagtacaaac tctacgttc 180

Sequence Listing

gtagactatt ttacataaat agtctacacc gtgttatacg ctccaaatac actaccacac 240

attgaacett tttgcagtgc aaaaaagtac gtgtcggcag tcacgtaggc cggccttatac 300

gggtcgcgtc ctgtcacgta cgaatcacat tatcggaccg gacgagtgtt gtcttatacgt 360

gacaggacgc cagttcctg tggtaaac cgcaactcct tatcggaaaca 420

ggacgcgcct ccatatcago cgcgcgttat ctcatgcgcg tgaccggaca cgaggcgccc 480

gtcccgctta tcgcgcctat aaatacagcc cgcaacgatc tggtaaacac agttgaacag 540

catctgttac agcgacacaa catg 564

<210> 2

<211> 44

<212> DNA

<213> Orgyia pseudotsugata

<400> 2

ccgcggatcg atatctgact aaatcttagt ttgtattgtc atgt 44

<210> 3

<211> 24

<212> DNA

<213> Orgyia pseudotsugata

Sequence Listing

<400> 3

cgggtgcgca cgcgcttcaa agga

24

<210> 4

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR amplifier

<400> 4

aatttaaacg ttggtaacct cgagctcagc tgaattctgg atcct

45

<210> 5

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR amplifier

<400> 5

ctagaaggat ccagaattca gctgagctcg aggtaccaag ctta

45

<210> 6

<211> 36

Sequence Listing

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR amplifier

<400> 6

ctagaccggt catatgcggg ccgcggatcg atcgat

36

<210> 7

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: PCR amplifier

<400> 7

atcgatcgat ccgcggccgc atatgaccgt

30

<210> 8

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

Sequence Listing

<400> 8

tcgggtgcgc acgcgcttga aagga

25

<210> 9

<211> 55

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 9

tcagctgcag atgaagaggc ctagacctat gaaaccagta acgttatacg atgtc

55

<210> 10

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Primer

<400> 10

acttaagctt atagcgatga ctgccccgtt tccagtcggg aaacacctgtcg

50

<210> 11

Sequence Listing

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Bombyxin  
secretion signal oligonucleotide fragment

<400> 11

aattatgaag atactccttg ctattgcatt aatgttgtca acagtaatgt gggtgtcaac 60

aagctta

67

<210> 12

<211> 67

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Bombyxin  
secretion signal oligonucleotide fragment

<400> 12

ctagtaagct tggtgacacc cacattactg ttgacaacat taatgcaata gcaaggagta 60

tcttcat

67

Sequence Listing

<210> 13

<211> 66

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Enhancer

sequence OpE

<400> 13

cctttcaagc gcgtgcgcac ccgaaaagca gggtcgcccgc tgacgcactg ctaaaaatag 60

66

cacgcg

<210> 14

<211> 462

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Promoter

sequence of the OpMNPV ie2 gene

<400> 14

ccccaccacc aacttttttg cactgaaaa aaacacgctt ttgcacgcgg gcccatacat 60

agtacaaaact ctacgtttcg tagactatTT tacataaata gtctacaccg ttgtatacgc 120

tccaaataca ctaccacaca ttgaaccttt ttgcagtgca aaaaagtacg tgtcggcagt 180

Sequence Listing

cacgttaggcc ggccttatcg ggtcgctcc tgtcacgtac gaatcacatt atcggaccgg 240

acgagtgttg tcttatcgtg acaggacgcc agttcctgt gttgctaacc gcagccggac 300

gcaactcctt atcggAACAG gacgcgcctc catatcagcc gcgcgttata tcattgcgt 360

gaccggacac gaggcgccccg tcccgcttat cgccgcctata aatacagccc gcaacgatct 420

gttAAACACA gttgaacAGC atctgttaca gcgacacaac at 462

<210> 15

<211> 88

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of  
promoter sequence of the AcMNPV ien gene

<400> 15

gataaaattta aatgaattt ttttgcaatg caaaaaagtt cactttgcc tgacactcca 60

tatacagtag aatctctaca aatcgtag 88

<210> 16

<211> 92

## Sequence Listing

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of  
promoter sequence of the AcMNPV ien gene

<400> 16

ctattttatt agaatagtct acactgtacg atacgcgtccc aatatactac tacactatca 60

acttttttgc attacaaaaa agttcatttt tg 92

卷之三

<210> 17

<211> 12

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of  
the promoter sequence of the AcMNPV ien gene

<400> 17

cctggcaagt tc 12

<210> 18

<211> 17

<212> DNA

### <213> Artificial Sequence

Sequence Listing

<220>

<223> Description of Artificial Sequence: Fragment of  
the promoter sequence of the AcMNPV ien gene

<400> 18

ccccaccact attgtct

17

<210> 19

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of  
the promoter sequence of the AcMNPV ien gene

<400> 19

tatcagtcgt gcagta

16

<210> 20

<211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of

Sequence Listing  
the promoter sequence of the AcMNPV ien gene

<400> 20  
ctgataaaca gtataaatac agctgccgtt ctactcgtaa gcacagttca 50

<210> 21

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Fragment of  
the promoter sequence of the AcMNPV ien gene

<400> 21

agcctcacag cctagtgaac agtat 25

<210> 22

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: IE2B promoter  
element

<400> 22

gacaggacgc 10

Sequence Listing

<210> 23

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: IE2B promoter  
element

<400> 23

cttatacgta caggacgc

18

<210> 24

<211> 10

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: IE2B promoter  
element

<400> 24

aacaggaagc

10

<210> 25

## Sequence Listing

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: IE2B promoter

element

<400> 25

c<sub>1</sub>t<sub>2</sub>t<sub>3</sub>a<sub>4</sub>c<sub>5</sub>g<sub>6</sub>g<sub>7</sub>a<sub>8</sub> a<sub>9</sub>c<sub>10</sub>g<sub>11</sub>g<sub>12</sub>a<sub>13</sub>c<sub>14</sub>g<sub>15</sub>c<sub>16</sub> c<sub>17</sub> 18

10. *Chlorophytum comosum* (L.) Willd. (Liliaceae) (Fig. 10)

<210> 26

<211> 132

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Native

### melanotransferrin (p97) construct

<220>

<221> CDS

<222> (1)..(129)

<400> 26

gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1

5

10

15

Sequence Listing

gca gcg gcc ccg gcg ccc ggg gcg ccc ctg ctc ccg ctg ctg ctg ccc 96  
Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Leu Pro Leu Leu Pro  
20 25 30

gcc ctc gcc gcc cgc ctg ctc ccg ccc gcc ctc tga 132  
Ala Leu Ala Ala Arg Leu Leu Pro Pro Ala Leu  
35 40

<210> 27

<211> 43

<212> PRT

<213> Artificial Sequence

<400> 27

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1 5 10 15

Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Leu Pro Leu Leu Pro

20 25 30

Ala Leu Ala Ala Arg Leu Leu Pro Pro Ala Leu

35 40

<210> 28

<211> 84

<212> DNA

<213> Artificial Sequence

Sequence Listing

<220>

<223> Description of Artificial Sequence: Deletion

construct made of the melanotransferrin (p97) gene

<220>

<221> CDS

<222> (1)..(81)

<400> 28

gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1

5

10

15

gca gcg gcc ccg gcg ccc ggg gcg ccc ctg atc tga 84

Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Ile

20

25

<210> 29

<211> 27

<212> PRT

<213> Artificial Sequence

<400> 29

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1

5

10

15

Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Ile

20

25

Sequence Listing

<210> 30

<211> 87

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Deletion

construct made of the melanotransferrin (p97) gene

<220>

<221> CDS

<222> (1)..(84)

<400> 30

gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48  
Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1

5

10

15

gca gcg gcc ccg gcg ccc ggg gcg ccc cta tct gac taa 87  
Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Ser Asp

20

25

<210> 31

<211> 28

<212> PRT

<213> Artificial Sequence

Sequence Listing

<400> 31

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1 5 10 15

Ala Ala Ala Pro Ala Pro Gly Ala Pro Leu Ser Asp

20 25

<210> 32

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Deletion

construct made of the melanotransferrin (p97) gene

<220>

<221> CDS

<222> (1)..(69)

<400> 32

gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1 5 10 15

gca gcg gcc ccg gcg ccc atc tga 72

Ala Ala Ala Pro Ala Pro Ile

20

Sequence Listing

<210> 33

<211> 23

<212> PRT

<213> Artificial Sequence

<400> 33

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1

5

10

15

Ala Ala Ala Pro Ala Pro Ile

20

<210> 34

<211> 69

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Deletion

construct made of the melanotransferrin (p97) gene

<220>

<221> CDS

<222> (1)..(66)

<400> 34

Sequence Listing  
gac tac gtg gcg gcg ctg gaa ggg atg tcg tct cag cag tgc tcg ggc 48  
Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly  
1 5 10 15

gca gcg gcc cca tct gac taa 69  
Ala Ala Ala Pro Ser Asp  
20

<210> 35

<211> 22

<212> PRT

<213> Artificial Sequence

<400> 35

Asp Tyr Val Ala Ala Leu Glu Gly Met Ser Ser Gln Gln Cys Ser Gly

1 5 10 15

Ala Ala Ala Pro Ser Asp

20

<210> 36

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Deletion

construct made of the melanotransferrin (p97) gene

Sequence Listing

<220>

<221> CDS

<222> (1)..(18)

<400> 36

gac tac gtg gcg gcg atc tga

21

Asp Tyr Val Ala Ala Ile

1

5

<210> 37

<211> 6

<212> PRT

<213> Artificial Sequence

<400> 37

Asp Tyr Val Ala Ala Ile

1

5

<210> 38

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Deletion

construct made of the melanotransferrin (p97) gene

Sequence Listing

<220>

<221> CDS

<222> (1)..(24)

<400> 38

gac tac gtg gat ctg act aaa tct tag  
Asp Tyr Val Asp Leu Thr Lys Ser

27

1 5

<210> 39

<211> 8

<212> PRT

<213> Artificial Sequence

<400> 39

Asp Tyr Val Asp Leu Thr Lys Ser

1 5

<210> 40

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Chicken p97

homolog

Sequence Listing

<400> 40

Cys Ser Gly Ala Gly Asn Lys Leu Ile Gln Gln His Leu Leu Val Ile  
1 5 10 15

Thr Phe Val Pro Phe Ile Ile Leu Gly Gln Leu Gln Gly  
20 25

<210> 41

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Chicken p97  
homolog

<400> 41

Cys Ser Gly Ala Val Ser Pro Glu Leu Cys Phe Gln Lys Arg  
1 5 10

<210> 42

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

Sequence Listing

P-element end

<400> 42

cgacgggacc accttatgtt atttcatcat gggccagacc cacgtagtcc agcgcc 56

<210> 43

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 43

cgacgggacc accttatgtt atttcatcat gtctcgaacc aacgagagca gtatgc 56

<210> 44

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 44

cgacgggacc accttatgtt atttcatcat ggtacagaca tctacttccc cccgct 56

Sequence Listing

<210> 45  
<211> 56  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Rescued  
P-element end

<400> 45  
cgacgggacc accttatgtt atttcatcat gatcttgcgc tttaaaatgt ggagtc 56

<210> 46  
<211> 56  
<212> DNA  
<213> Artificial Sequence  
  
<220>  
<223> Description of Artificial Sequence: Rescued  
P-element end

<400> 46  
cgacgggacc accttatgtt atttcatcat ggtctggcca ttctcatcgt gagctt 56

<210> 47

Sequence Listing

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 47

cgacgggacc accttatgtt atttcatcat gagccaaaca gaaagcagaa aagctc 56

56  
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<210> 48

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 48

cgacgggacc accttatgtt atttcatcat ggcctgacct aagcagattt gactgc 56

<210> 49

<211> 15

<212> DNA

<213> Artificial Sequence

Sequence Listing

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 49

cgacgggacc acctt

15

<210> 50

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Rescued

P-element end

<400> 50

caacgctacc taatcttaag aacca

25